

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method for measuring distance between a stator (5) and an opposing rotor (3) in a machine, ~~in particular a refiner designed for the manufacture of paper pulp,~~ where the stator is provided with at least one sensor device (7) of ~~the~~ a magnetic type ~~which is and intended~~ configured to interact with an opposing surface on the rotor, and where a sensor body (10) ~~can be moved~~ is movable axially in a housing (11) mounted in the stator, comprising the steps of:

receiving a signal value from the sensor device; and
~~with the sensor device being calibrated~~ calibrating the sensor device by moving the sensor body ~~being moved a distance~~ in the direction towards the rotor, ~~and~~ and the size of ~~this~~ the movement being related to the signal value from the sensor device, ~~characterized in that~~ wherein,

the movement is ~~made so~~ sufficiently large that contact is made between ~~steps~~ a first and second stop (16, 17) in the sensor device arranged at a first predetermined distance (c) apart and interacting with each other, ~~with~~

~~one~~ the first stop (16) being is arranged on the sensor body (10) at a second predetermined distance (e) from the an end surface of ~~the a~~ measuring end (10a) of the sensor body (10), ~~which the second predetermined distance (e) is being~~ considerably smaller than ~~the a~~ length of the sensor body (10), ~~and~~

the second stop (17) ~~being is~~ arranged in the housing (11), and

the second predetermined distance (e) exceeds a distance (d) between the second stop (17) and the end surface of the measuring end (10a) of the sensor body (10) by the first predetermined distance (c) when the sensor body is moved to a normal measuring position in the stator.

2. (currently amended) [[A]] The method according to Claim 1, ~~characterized in that wherein~~ the movement is commenced from a position where ~~the an~~ end of the sensor body (10) is on a level with a grinding segment (9) facing towards the rotor (3).

3. (currently amended) A sensor device for measuring distance between a stator (5) and an opposing rotor (3) in a machine, ~~in particular a refiner designed for the manufacture of paper pulp, where the~~ comprising:

a sensor device (7) [[is]] of the a magnetic type,
having a housing (11) and an operating mechanism (13), and is

~~intended~~ configured to be mounted in the stator ~~in order~~ to interact with an opposing surface on the rotor[[,]]; and

~~where~~ a sensor body (10) ~~can be moved~~ axially movable in [[a]] ~~the~~ housing (11) ~~intended to be mounted in the stator~~ and ~~is~~ connected to ~~an~~ the operating mechanism (13) for axial movement of the sensor body relative to the housing, ~~characterized in that~~ wherein,

the sensor body (10) ~~as~~ has a first stop (16) at a first predetermined distance (e) from ~~the an~~ an end surface of ~~its~~ a measuring end (10a) of the sensor body (10), ~~which the first~~ predetermined distance (e) ~~is being~~ considerably smaller than ~~the~~ a length of the sensor body (10),

~~which the first~~ stop (16) is ~~designed~~ configured to interact with a corresponding second stop (17) inside the housing (11), and ~~in that this~~

the first predetermined distance (e) exceeds ~~the a~~ distance (d) between the second stop (17) ~~in the housing~~ and the end surface of the measuring end (10a) of the sensor body (10) by a second predetermined distance (c) when the sensor body is in ~~its~~ a normal measuring position in the stator.

4. (currently amended) [[A]] The sensor device according to Claim 3, ~~characterized in that~~ wherein the first stop (16) in the sensor body is provided with teeth (18), the

tips of ~~which the teeth point~~ pointing towards the second stop (17) in the housing.

5. (currently amended) [[A]] The sensor device according to Claim 3, ~~characterized in that wherein~~ the second stop (17) in the housing ~~is essentially in the~~ has a shape essentially of a ring and is arranged at ~~the~~ an end of the housing (11).

6. (currently amended) [[A]] The sensor device according to Claim 3, ~~characterized in that wherein~~ the second predetermined distance (c) between the ~~two~~ first and second stops (16, 17) is at least ~~the~~ a same size as ~~the~~ a grinding gap (6) between [[a]] the rotor and the stator when the sensor body (10) is in ~~its~~ the normal measuring position.

7. (currently amended) [[A]] The sensor device according to Claim 4, ~~characterized in that wherein~~ the second stop (17) in the housing ~~is essentially in the~~ has a shape essentially of a ring and is arranged at ~~the~~ an end of the housing (11).

8. (currently amended) [[A]] The sensor device according to Claim 4 ~~characterized in that wherein~~ the second predetermined distance (c) between the ~~two~~ first and second stops

(16, 17) is at least ~~the~~ a same size as ~~the~~ a grinding gap (6) between the [[a]] rotor and the stator when the sensor body (10) is in ~~its~~ the normal measuring position.

9. (currently amended) [[A]] The sensor device according to claim 5 ~~characterized in that~~ wherein the second predetermined distance (c) between the ~~two~~ first and second stops (16, 17) is at least ~~the~~ a same size as ~~the~~ a grinding gap (6) between [[a]] the rotor and the stator when the sensor body (10) is in ~~its~~ the normal measuring position.

10. (new) The method according to Claim 1, wherein the machine is a refiner designed for the manufacture of paper pulp.

11. (new) The sensor device according to Claim 3, wherein the machine is a refiner designed for the manufacture of paper pulp.